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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/648,971

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Terry Lee Erskine

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EXAMINER

VU, PHUONG T

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/648,971

Applicant(s)

ERSKINE, TERRY LEE

Examiner

Phuong T. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10-20-03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one invention is required under 35 U.S.C. 121:
 - I. Claims 1-4, drawn to a system comprising an equipment rack and a plurality of electronic modules, classified in class 361, subclass 727.
 - II. Claims 5-10, drawn to an equipment rack, classified in class 361, subclass 796.
 - III. Claims 11-13, 15, drawn to electronic modules, classified in class 361, subclass 728.
 - IV. Claim 14, drawn to an electronic module comprising precharge and regular contacts for an electronic module, classified in class 361, subclass 733.
2. Group I recites a combination comprising an equipment rack and a plurality of modules used with the rack. Groups II and III recite subcombinations which are usable together in a single combination. However since the details of equipment rack recited in Group II and the details of the electronic modules recited in Group III have recited in the combination claims of Group I and the equipment rack of Group II requires the complementary electronic modules of Group III, these Groups are not restrictable. Therefore, Groups I, II, III are considered Invention I. Group IV is considered Invention II. Group IV, which recites an electronic module comprising precharge and regular contacts and Group III which recites electronic modules complementary to a specific equipment rack are related as subcombinations disclosed as usable

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together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, Invention II has separate utility such as a module which may be used in other equipment racks have configurations different than the rack of Group II. See MPEP § 806.05(d).

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Michael S. Okamoto on June 11, 2004 a provisional election was made without traverse to prosecute the Invention I comprising Groups I, II, III, claims 1-13, 15. Affirmation of this election must be made by applicant in replying to this Office action. Applicant's representative further authorized cancellation of claim 14 directed to Group IV. Claim 14 is withdrawn from consideration, as being directed to a nonelected invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application

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designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 4, 8, 10-13, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang (US 5,808,867). Regarding claim 1, the reference discloses a modular electronic system using a tongue and groove arrangement to restrain motion of electronic modules 20, the modular electronic system comprising an equipment rack (comprising computer chassis not shown and 10) with a plurality of openings (see figure 4) for receiving electronic modules, wherein an opening is defined by a left side wall, a right side wall, and a bottom surface (bottom of computer chassis), where the left side wall further defines a first groove (bottom groove below 120 on left side wall) disposed a first height above the bottom surface, where the right side wall further defines a second groove (top groove above 120 on right side wall) disposed a second height above the bottom surface, where the first height is different from the second height and a plurality of electronic modules with housings adapted to slidably couple into openings of the equipment rack, where a housing for an electronic module further comprises at least a left side wall and a right side wall, where the left side wall of the electronic module comprises a first tongue 23 that is adapted to mate with the first groove in a corresponding left side wall of the equipment rack, and where the right sidewall of the electronic module comprises a second tongue 23 that is adapted to mate with the second groove in a corresponding right side wall of the equipment rack.

Regarding claim 2, the opening in the equipment rack that is defined by the left side wall, the right side wall, and the bottom surface does not have an upper surface for restraining vertical movement of an electronic module.

Regarding claim 4, at least one of the electronic modules corresponds to a power supply.

Regarding claim 8, the reference discloses a sidewall in an equipment rack that is adapted to hold electronic modules, the side wall comprising a first side, a second side, a first groove (top groove above 120 on right side wall) defined in the first side, and a second groove (bottom groove below 120 on left side wall) defined in the second side, wherein the second groove is at a different height than the first groove.

Regarding claim 10, the first groove on the first side is adapted to mate with a first tongue 23 on a first side of an electronic module, and where the second groove on the second side is adapted to mate with a second tongue 23 on the second side of another electronic module, where the second side is opposite to the first side.

Regarding claim 11, the reference discloses a housing for an electronic module 20 that is adapted to slide into an opening in an equipment rack, the housing comprising a rear side adapted to interface with the equipment rack via at least one connector 22, a front side, a top side, a bottom, a first side wall with a first tongue 23, where the first tongue is adapted to slidably couple into a first groove (bottom groove on left side wall) of a corresponding wall of an equipment rack, and a second side wall opposite the first side wall, the second side wall

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having a second tongue 23 that is adapted to slidably couple into a second groove (top groove on right hand side wall) of a corresponding wall of the equipment rack, where the second tongue is at a second height with reference to the bottom, where the second height is different from the first height.

Regarding claim 12, the electronic module corresponds to a power supply.

Regarding claim 13, the at least one connector comprises a plurality of connectors.

Regarding claim 15, a power supply embodies the housing.

7. Claims 1-3, 5-10 rejected under 35 U.S.C. 102(b) as being anticipated by Chen (US 6,388,875B1). Regarding claim 1, the reference discloses a modular electronic system using a tongue and groove arrangement to restrain motion of electronic modules 90, 90" the modular electronic system comprising an equipment rack comprising 102, 102" with a plurality of openings for receiving electronic modules, wherein an opening is defined by a left side wall, a right side wall, and a bottom surface, where the left side wall further defines a first groove (bottom-most groove in left side wall) disposed a first height above the bottom surface, where the right side wall further defines a second groove (groove above bottom-most groove in right side wall) disposed a second height above the bottom surface, where the first height is different from the second height and a plurality of electronic modules with housings adapted to slidably couple into openings of the equipment rack, where a housing for an electronic module further comprises at least a left side wall and a right side wall, where the left side

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wall of the electronic module comprises a first tongue 110 that is adapted to mate with the first groove in a corresponding left side wall of the equipment rack, and where the right sidewall of the electronic module comprises a second tongue 110 that is adapted to mate with the second groove in a corresponding right side wall of the equipment rack.

Regarding claim 2, the opening in the equipment rack that is defined by the left side wall, the right side wall, and the bottom surface does not have an upper surface for restraining vertical movement of an electronic module.

Regarding claim 3, a first side of a single side wall defines the left side wall with the first groove for the opening, and a second side of the single side wall defines a right side wall with a second groove for the second opening.

Regarding claim 5, the reference discloses an equipment rack comprising 102, 102" for holding electronic modules 90, 90" the equipment rack for holding electronic modules, the equipment rack comprising a plurality of bottom walls, a plurality of side walls, where a space between sidewalls and a bottom wall defines an opening for an electronic module, a plurality of first grooves (bottom-most groove in left side wall) on a first side of the side walls, where the first grooves are displaced by a first amount from a bottom wall of a corresponding opening, and a plurality of second grooves (above bottom-most groove in right side wall) on a second side of the side walls, where the second grooves are displaced by a second amount from a bottom wall of a corresponding opening, where the second amount is different from the first amount.

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Regarding claim 6, the opening in the equipment rack that is defined in the space between a first side of a side wall, a second side of the sidewall, and a bottom surface does not have an upper surface for restraining vertical movement of an electronic module disposed therein.

Regarding claim 7, the first side of the side wall and the second side of the side wall comprise opposite sides of a single wall.

Regarding claim 8, the reference discloses a sidewall in an equipment rack that is adapted to hold electronic modules, the side wall comprising a first side, a second side, a first groove defined in the first side (bottom-most groove in left side wall), and a second groove (above bottom-most groove in right side wall) defined in the second side, wherein the second groove is at a different height than the first groove.

Regarding claim 9, the sidewall is fabricated from a single sheet of metal.

Regarding claim 10, the first groove on the first side is adapted to mate with a first tongue 110 on a first side of an electronic module, and where the second groove on the second side is adapted to mate with a second tongue 110 on the second side of another electronic module, where the second side is opposite to the first side.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong T. Vu whose telephone number is (571) 272-2111. The examiner can normally be reached on Mon. & Tues., 7:30 AM - 4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S. Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PTVu 
Patent Examiner